**IN THE UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF VIRGINIA
NORFOLK DIVISION**

WEB3AI TECHNOLOGIES, LLC,

       Plaintiff,

v.

MICROSTRATEGY INCORPORATED D/B/A
STRATEGY,

       Defendant.

Civil Action No.: 2:25-cv-260-AWA-DEM

**DEFENDANT MICROSTRATEGY INCORPORATED'S
MEMORANDUM OF LAW IN SUPPORT OF ITS MOTION TO DISMISS
<u>WEB3AI'S COMPLAINT FOR PATENT INFRINGEMENT</u>**

TABLE OF CONTENTS

TABLE OF AUTHORITIES

Page(s)

Cases

iv

Statutes

TABLE OF EXHIBITS

#	Description
1	Ex parte *Kelly D. Phillips and Richard W. Wellman*, No. 2019-002600 (P.T.A.B. Aug. 19, 2020) (Decision on Appeal)
2	2015-09-15 Amended Claims re U.S. Patent App. Pub. No. 2014/0358825
3	Chart Comparing Specification of U.S. Patent No. 9,218,574 to Specification of U.S. Patent No. No. 8,880,446
4	Brief of Appellant, *PurePredictive, Inc. v. H2O.AI, Inc.*, 741 F. App'x 802 (Dkt. No. 19)
5	Reply Brief of Appellant, *PurePredictive, Inc. v. H2O.AI, Inc.*, 741 F. App'x 802 (Dkt. No. 32)

MicroStrategy Incorporated d/b/a Strategy respectfully submits this brief in support of its motion to dismiss pursuant to Rule 12(b)(6) because all claims of asserted U.S. Patent No. 9,218,574 ("the '574 patent") are invalid under 35 U.S.C. §§ 101 and/or 112.

I.   INTRODUCTION

The grant of a patent represents an exclusionary right and it is part of a deal a putative inventor makes with the public. In exchange for what amounts to a limited monopoly granted by the government, an inventor may claim an invention, but to do so, the inventor must add to the public store of knowledge by disclosing something new, useful, and nonobvious. Further, the inventor must do it in a way that adequately describes the invention, and shows they invented what they claimed to invent. In no case can an inventor preempt a field by claiming patent-ineligible subject matter, such as abstract ideas. Yet, that is precisely what the named inventors of the '574 patent in this case have done: each of their patent claims describe an abstract idea that is by its terms unpatentable. Thus, the '574 patent is invalid. Indeed, the Court of Appeals for the Federal Circuit has said as much by invalidating another patent issued to the same inventors as the '574 patent and sharing a similar patent specification.[1]

The '574 patent claims "to provide an accessible user interface for machine learning results"—or, more plainly, a display for showing programming results. Although the specification repeats the phrase "machine learning" more than 550 times, the '574 patent does not teach any

---

[1] These same inventors also abandoned a continuation application for the '574 patent (*i.e.*, an application based on the same disclosure as the '574 patent providing a way to "continue" the examination process) after a different U.S. Patent Office Examiner rejected those claims as directed to patent ineligible subject matter without significantly more. *See* Ex. 1 at 3. The Patent Trial and Appeal Board conducted a *de novo* review of the appealed § 101 rejection and affirmed that Examiner's rejection, thus confirming the claims are not patent eligible. *Id.*; *see also id.* at 7-18 (finding the claims are "similar to other ideas found to be abstract by various courts, such as collecting information, analyzing it, and displaying certain results of the collection and analysis").

technique for accomplishing machine learning, instead generally claiming advances across the field using generic computers to do things that people do not need computers to do. Indeed, the stated goal of the '574 patent is to use a general-purpose computer to perform certain tasks faster than it would otherwise take a human to perform those tasks, which is not a patent-eligible invention. *See PurePredictive, Inc. v. H2O.AI, Inc.*, No. 17-CV-03049-WHO, 2017 WL 3721480, at *5 (N.D. Cal. Aug. 29, 2017), *aff'd sub nom. PurePredictive, Inc. v. H2O.AI*, *Inc.*, 741 F. App'x 802 (Fed. Cir. 2018) ("*PurePredictive*") ("[J]ust because a computer can make calculations more quickly than a human does not render a method patent eligible."). As such, the Court should dismiss this case with prejudice because every claim of the '574 patent is directed to an abstract idea and fails to recite any transformative concept that would make it patent eligible. 35 U.S.C. § 101; *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208, 223-26 (2014) ("*Alice*").

The Court should also dismiss this case with respect to Claim 1, Claim 21, and their dependent claims, because the inventors did not uphold their end of the patent bargain to articulate something that meets the requirements for patentability. Specifically, the inventors used "means-plus-function" claim language without reciting structure sufficient to define that functional, results-based claim language. As a result, the inventors did not deserve to get the '574 patent in the first place, and they don't deserve to keep it. The Court should not allow Web3AI to continue to assert invalid claims and therefore the Court should dismiss the Complaint with prejudice.

II.   FACTUAL BACKGROUND

A.   Overview of the '574 Patent

The '574 patent is directed to aspects of a user interface for displaying machine learning data to people that may be unfamiliar with interpreting such data. *See* '574 patent at Abstract. Raw machine learning data, such as predictions or other analyses, are often represented as static numbers, which "can be confusing and inaccessible, and may hold little meaning for a lay person

attempting to interpret the data." *Id.* at 1:12-17. The '574 patent suggests that users such as "a business person, sales person, or the like" would be prohibited from otherwise "us[ing] machine learning to predict business actions or outcomes." *Id.* at 1:18-22. According to the patent, if such a user would like to change a parameter or input for machine learning predictions, "a substantial delay will occur before a new machine learning prediction is available." *See id.* at 1:23-28. The '574 patent accordingly proposes "an accessible user interface for machine learning results," to "dynamically update and display machine learning results during runtime, with little or no delay." *Id.* at 1:32-37. The reason for the alleged delay is not given, nor is it explained why or how this alleged delay is reduced from such a display.

The '574 patent claims describe a five-step process to provide the user interface, as shown in exemplary Claim 16: (1) generate a "predictive program"; (2) input all parameter permutations—"incrementally between minimum values . . . and maximum values"—into the predictive program; (3) determine all possible results based upon the inputs; (4) populate a "results data structure" with the results that were determined; and (5) dynamically (*i.e.*, in real time) change what is displayed from the results data structure "in response to user input." *Id.* at cl. 16; *see also id.* at 1:34-37 (display is updated "during runtime, with little or no delays"). While its specification is long, the '574 patent is notable for what it *does not* do: the claims do not recite any hardware, much less any novel hardware.[2] Instead, the '574 patent relies solely on generic computer

---

[2] Claims 1-15 are apparatus claims that do not recite any specific computer components, just black box "modules" performing recited functions. Claims 16-20 are method claims reciting no tangible computer components. Claims 21-25 are system claims that similarly recite only result-oriented "modules." These differences are immaterial because the independent claims are drafted in vague, general, and "purely conventional" language that only recites a "generic computer function[]" which does not impact the § 101 inquiry. *Alice*, 573 U.S. at 225; '574 patent at cls. 1, 21. Although the form of the claims differ among apparatus, method, and system claims, they all recite the same abstract idea that is recited in method Claim 16. *See infra* § IV.A.1.

components to perform the claimed process and, in fact, emphasizes that implementations "may take the form of an entirely hardware embodiment, an entirely software embodiment (including firmware, resident software, micro-code, etc.) or an embodiment combining software and hardware"—without teaching or disclosing any tangible improvement. *See* '574 patent at 3:25-31; *see also generally id.* at 3:25-6:10. This presents a fundamental problem for Plaintiff Web3AI, as the Federal Circuit already has shown in the *PurePredictive* matter discussed below.

B.   The Federal Circuit Held a Sister Patent Invalid Under 35 U.S.C. § 101

The Court of Appeals for the Federal Circuit, which hears appeals in patent matters, has already held claims substantively identical to those at issue here ineligible under § 101.

PurePredictive, the original assignee of the asserted '574 patent, asserted a related patent ("the '446 patent"), accusing defendant H2O.AI's machine learning platform of infringement. The Northern District of California court granted H2O's motion to dismiss under § 101, and the Federal Circuit affirmed the finding that the '446 patent was directed to ineligible subject matter. *See generally PurePredictive, aff'd sub nom. PurePredictive, Inc. v. H2O.AI, Inc.*, 741 F. App'x 802 (Fed. Cir. 2018). The *PurePredictive* analysis is particularly instructive because the patent claims invalidated there were ***directed to the same ineligible subject matter*** as the patent claims asserted here. *See id.* at *5 (finding the '446 patent claims were "directed to a mental process and the abstract concept of using mathematical algorithms to perform predictive analytics"). As detailed in Section IV.B, *infra*, the '446 patent analysis under *Alice* Steps 1 and 2, and the Federal Circuit's affirmance thereof, all confirm the same result should be reached here.

III.   LEGAL STANDARD

A.   Patentability Under 35 U.S.C. §§ 101 and 112(f) Are Threshold Legal Issues

Patentability under § 101 is a threshold legal issue. *Bilski v. Kappos*, 561 U.S. 593, 602 (2010). Thus, "it is possible and proper to determine patent eligibility under 35 U.S.C. § 101 on a

Rule 12(b)(6) motion." *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1373 (Fed. Cir. 2016); *see also AI Visualize, Inc. v. Nuance Commc'ns, Inc.*, 97 F.4th 1371, 1381 (Fed. Cir. 2024) (affirming grant of motion to dismiss based on § 101 ineligibility); *In re TLI Commc'ns LLC Pat. Litig.*, 87 F. Supp. 3d 773, 804-05 (E.D. Va. 2015) (granting motion to dismiss based on § 101), *aff'd*, 823 F.3d 607 (Fed. Cir. 2016). An early § 101 inquiry can be raised if it is apparent from the face of the patent that the claims are not directed to patent eligible subject matter. *Cleveland Clinic Found. v. True Health Diagnostics LLC*, 859 F.3d 1352, 1359-60 (Fed. Cir. 2017).

Similarly, compliance with § 112(f) is also a threshold issue that may be decided upon a motion to dismiss. *In re TLI Commc'ns LLC Pat. Litig.*, 87 F. Supp. 3d 773 at 804-05 (granting motion to dismiss based on § 112(f) invalidity), *aff'd*, 823 F.3d 607 (Fed. Cir. 2016).

B.   Invalidity Under 35 U.S.C. § 101

Only certain subject matter is patentable. The Patent Act defines four categories of potential patent-eligible subject matter: "any new and useful process, machine, manufacture, or composition of matter." 35 U.S.C. § 101. But not everything within these categories is eligible for patenting. As the Supreme Court has made clear, "[l]aws of nature, natural phenomena, and ***abstract ideas are not patentable***."[3] *Alice*, 573 U.S. at 216. The '574 patent is invalid under § 101 because it is directed to abstract ideas.

When determining whether a patent claim covers an abstract idea, the "[t]he § 101 inquiry must focus on the language of the Asserted Claims themselves." *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1149 (Fed. Cir. 2016). The legal inquiry—referred to as the *Alice* analysis—involves two steps. Under *Alice* Step 1, the court assesses "whether the claims at issue are directed to a patent ineligible concept," *Alice*, 573 U.S. at 217, by "evaluat[ing] the focus of

---

[3] Emphases in this brief have been added, unless otherwise noted.

the claimed advance over the prior art to determine if the character of the claim as a whole, considered in light of the specification, is directed to excluded subject matter." *Trading Techs. Int'l, Inc. v. IBG LLC*, 921 F.3d 1378, 1384 (Fed. Cir. 2019) (internal quotation omitted). In other words, the relevant inquiry is whether the claim recites subject matter that is not purely abstract.

Under *Alice* Step 2, if the patent covers an abstract idea, which is ordinarily unpatentable, then the court must examine "the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application." *Alice*, 573 U.S. at 217 (quoting *Mayo Collab. Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 78-79 (2012)). The court must determine whether an "inventive concept" elevates the claim to patent-eligible subject matter, which requires "more than simply stat[ing] the [abstract idea] while adding the words 'apply it.'" *Id.* at 221 (quoting *Mayo*, 566 U.S. at 72) (alterations in original). In other words, a claim to an abstract idea must recite an inventive, substantial improvement over the prior art to overcome its abstract nature. Otherwise it is invalid.

C.   Invalidity Under 35 U.S.C. § 112(f)

Section 112(f) allows claiming in a "means-plus-function" format, which is "a means or step for performing a specified function without the recital of structure, material, or acts in support thereof." 35 U.S.C. § 112(f). However, claims expressed in this manner "shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." *Id.* If the written description "'fails to set forth an adequate disclosure' of a structure corresponding to the means in a means-plus-function claim, then the claim is indefinite, and therefore invalid." *Atmel Corp. v. Info. Storage Devices, Inc.*, 198 F.3d 1374, 1383 (Fed. Cir. 1999) (quoting In re *Donaldson Co.*, 16 F.3d 1189, 1195 (Fed. Cir. 1994) (en banc)).

Means-plus-function analysis proceeds in two steps. First, courts must examine "if the claim limitation is drafted in the means-plus-function format." *Robert Bosch, LLC v. Snap–On*

6

Inc., 769 F.3d 1094, 1097 (Fed. Cir. 2014). Where the claim language does not recite the term "means," there is a presumption that the limitation does not invoke § 112(f), but "the presumption can be overcome and § 112[(f)] will apply if the challenger demonstrates that the claim term fails to 'recite sufficiently definite structure' or else recites 'function without reciting sufficient structure for performing that function.'" *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1349 (Fed. Cir. 2015) (quoting *Watts v. XL Sys., Inc.*, 232 F.3d 877, 880 (Fed. Cir. 2000)). The correct inquiry is "whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure." *Id.*

If the claim is drafted in means-plus-function format, then the analysis proceeds to the second step, in which courts determine whether there is any "'corresponding structure, material, or acts described in the specification' to which the claim term will be limited." *Robert Bosch, LLC*, 769 F.3d at 1097 (quoting *Welker Bearing Co. v. PHD, Inc.*, 550 F.3d 1090, 1097 (Fed. Cir. 2008)). Any such structure allegedly in the specification must correspond to a function recited in a claim where "the specification . . . 'clearly links or associates the structure to the function recited in the claim.'" *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1311 (Fed. Cir. 2012) (quoting *B. Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997)). Importantly, the structure allegedly disclosed for computer-implemented inventions must be "more than simply a general purpose computer or microprocessor." *Aristocrat Techs. Austl. Pty Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008). Thus, "[c]omputer-implemented means-plus-function claims are indefinite ***unless*** the specification discloses an algorithm to perform the function associated with the limitation." *Noah Sys.*, 675 F.3d at 1319; *see also Augme Techs., Inc. v. Yahoo! Inc.*, 755 F.3d 1326, 1337 (Fed. Cir. 2014) ("[T]he specification must disclose an algorithm for performing the claimed function.").

IV.   ARGUMENT

A.   The '574 Patent Is Invalid Under § 101 Because It is Directed to An Abstract Idea—Manipulation of Mathematical Algorithms and Display of Data

For the § 101 analysis, independent Claim 16 is representative. *See* § IV.A.1, *infra*. Claim 16 demonstrates that the '574 patent is directed to the abstract ideas of manipulating mathematical algorithms and displaying data, and it lacks any transformative inventive concept. *See* §§ IV.A.2-3, *infra*. Indeed, the Federal Circuit in *PurePredictive* affirmed that a sister patent was invalid on the same § 101 grounds for which this Court should find the '574 patent invalid. *See* § IV.A.2.a, *infra*. Furthermore, just like the patent in *PurePredictive*, the '574 patent cannot avoid a finding of invalidity by either its disclosures of wholly generic computer components, or by its prosecution history. *See* §§ IV.A.4-5, *infra*. Judgment for Strategy should follow.

1.   Claim 16 is Representative of All the '574 Patent Claims

In a § 101 inquiry, courts normally focus on a single representative claim if the group of claims do not materially differ for the patent-eligibility inquiry. *See, e.g.*, *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass'n*, 776 F.3d 1343, 1348 (Fed. Cir. 2014); *see also Nomula v. Hirshfeld,* 561 F. Supp. 3d 617, 621 (E.D. Va. 2021). Here, independent Claim 16 is representative of all claims of the '574 patent because each independent claim is directed to the same abstract idea, and the small differences in form are immaterial to the § 101 analysis.

Claim 16 recites Steps 16[a]-16[e]:

16. A method for machine learning results, the method comprising:

> [a] generating a predictive program comprising a plurality of learned functions from multiple machine learning classes;

> [b] inputting permutations of machine learning parameters incrementally between minimum values for the machine learning parameters and maximum values for the machine learning parameters into the predictive program;

> [c] determining machine learning results from the predictive program for the

input permutations of the machine learning parameters;

[d] populating a results data structure with the determined machine learning results indexed by the machine learning parameters;

[e] dynamically changing a display of one or more input permutations of the machine learning parameters from the results data structure in response to user input adjusting a displayed value for one or more of the machine learning results from the predictive program.

Claims 1 and 21—the only other independent claims—are drafted as apparatus and system claims, respectively, and differ from method Claim 16 only in that they recite generic "modules" that perform Steps 16[a]-16[e], while adding a limitation reciting that the modules are made of generic hardware. *See* '574 patent at cls. 1 & 21 (wherein the recited modules "comprise one or more of logic hardware and a non-transitory computer readable storage medium storing program code executable by a processor"). Further, Claim 1 alone recites an "update" module related to Step 16[e] and Claim 21 alone recites a "collaboration" module related to Step 16[c]. However, while the form differs slightly, the underlying abstract idea—manipulation of mathematical algorithms and display of data, as described in Steps 16[a]-16[e]—is the same across each of the independent claims. Indeed, the differences are immaterial to the § 101 inquiry because the independent claims are drafted in vague, general, and "purely conventional" language and only recite "generic computer function[s]." *Alice*, 573 U.S. at 225; '574 patent at cls. 1, 21. Additionally, all dependent claims of the '574 patent are directed to the same subject matter with minor variations, and should rise and fall with their respective independent claims. *Content Extraction & Transmission*, 776 F.3d at 1348-49. Thus, Claim 16 is representative of all claims of the '574 patent for purposes of the § 101 analysis.

2.   *Alice* Step 1: The Claims Recite Abstract Ideas Directed to Manipulating a Mathematical Function and Displaying Data

Claim 16 recites an abstract idea because each of Steps 16[a]-16[e] are directed to the manipulation of mathematical and display functions without reference to any specific computer, software, or any other device. Thus, the claims fail at *Alice* Step 1.

Step 16[a] attempts to monopolize generating all types of predictive learning programs, functions, and machine learning classes. Step 16[a] requires generating an unspecified "predictive learning program" made up of unspecified functions learned from any number and kind of machine learning classes. '574 patent at cl. 1. The predictive learning program is undefined other than it must comprise multiple "functions" that must be learned from undefined "machine learning classes." However, having functions is an inherent trait of any program—it is not tied to any computer or device, and it applies to any kind of data or algorithm. *See Synopsys*, 839 F.3d at 1149 ("Because the Asserted Claims make no mention of employing a computer or any other physical device, they are so broad as to read on an individual performing the claimed steps mentally or with pencil and paper."). Step 16[a] is therefore attempting to claim an abstract idea.

Step 16[b] requires inputting values to the predictive program generated in Step 16[a]. This step requires only that these values are permutations of unspecified (*i.e.*, any) machine learning parameters, existing between a "minimum" and a "maximum" value (*i.e.*, an inherent trait of any data set having a finite set of permutations), and are input incrementally. Again, this step is purely abstract data manipulation and is not tied to any computer, algorithm, or data. *See id.* Thus, Step 16[b] is also attempting to claim an abstract idea.

Step 16[c] requires determining machine learning results from the predictive program generated at Step 16[a] for the parameters input at Step 16[b]. There is, again, no recitation of any computer, specific data, or specific algorithms. The claim fails to state even ***how*** machine learning

results are determined—just that they are somehow based on unspecified inputs to an entirely generic predictive program. *See id.* Step 16[c], too, is entirely directed to an abstract idea.

Similar to Step 16[b], Step 16[d] recites populating an undefined "results data structure" with the machine learning results somehow determined in Step 16[c]. Here, the claim is silent as to who or what populates data and how it is populated—let alone how a "results data structure" is created. As with the other steps, there is no invocation of computers, specific data, or specific algorithms. Rather, this step requires only organizing or collecting data in a generic "results" data structure. *See id.* This, too, is abstract.

Finally, Step 16[e] requires "dynamically" updating an unspecified display based on Steps 16[b]-16[d]. Specifically, Step 16[e] calls for changing the display of the user input permutations from Step 16[b] based on machine learning results determined at Step 16[c]. As with all other steps, this element of the claim does not articulate how the display is updated—just that it is done "dynamically" and in response to the tasks performed in abstract Steps 16[a]-16[d]. *See id.* Again, this type of claiming is abstract.

The Federal Circuit regularly holds claims that, like Claim 16, merely recite collecting, organizing, and displaying data, as patent ineligible and invalid. *E.g.*, *Hawk Tech. Sys., LLC v. Castle Retail, LLC*, 60 F.4th 1349, 1357-58 (Fed. Cir. 2023) (invalidating as abstract a claim for "receiving video images, . . . *storing* at least a subset of the converted images, . . . receiving a request to receive one or more *specific* streams of the video images, . . . and *displaying* only the one or more requested specific streams of the video images"); *Broadband iTV, Inc. v. Amazon.com, Inc.*, 113 F.4th 1359, 1363-64 (Fed. Cir. 2024) (invalidating as abstract a claim for "a video-on-demand system" where video is "*uploaded* to . . . a content management system," organized by "category information" into a "hierarchical *structure* . . . content menu," and "*displayed* . . . using

11

the respective hierarchically-arranged category" via an "image[] . . . displayed with the associated respective title"); *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016) (holding ineligible the "process of gathering and analyzing information of a specified content, then displaying the results").

The '574 patent's stated purpose further evidences its abstract nature. The problem the patent allegedly solves is accelerating use of machine learning for a lay person (*i.e.*, business or sales people). In the technical background section of the patent, the applicant described the problems he sought to solve as related to the inaccessibility of raw data from (any) machine learning algorithms to lay people:

> Raw machine learning data can be confusing and inaccessible, and may hold little meaning for a lay person attempting to interpret the data. For example, a business person, sales person, or the like may use machine learning to predict business actions or outcomes. However, a static machine learning may hold little if any significance, and may be difficult to apply in practice. . . . If a user, such as the business person or sales person from the previous example, would like to change a parameter or input, a substantial delay will occur before a new machine learning prediction is available.

'574 patent at 1:12-28.

However, there is no proposed improvement upon machine learning itself—the problem the patent purports to solve is focused entirely on user operation and interpretation.[4] The specification also states that the disclosed process for machine learning is not limited to specific types of calculations or data, and instead may be used to "obtain a result, such as a classification, a confidence metric, an inferred function, a regression function, an answer, a prediction, a

---

[4] *Id.* at 7:8:-17 ("[M]achine learning results that are represented as static numbers can be confusing and difficult to understand. Machine learning may also receive large amounts of data as input for processing, and the machine learning inputs may be equally complex and daunting for a lay person to interpret or manipulate. *To overcome or minimize these shortcomings*, the one or more results modules 102, in certain embodiments, may use a cognitive, visual model *to provide meaning* to machine learning inputs, results, and/or other parameters.").

recognized pattern, a rule, a recommendation, an evaluation, or the like." '574 patent at 20:53-58.

In essence, the patent seeks only to speed up a lay person's use and understanding of otherwise

conventional machine learning by translating raw data for the lay person. *See id.* at 1:32-37 ("[A]

need exists . . . to provide an accessible user interface for machine learning results [that

b]eneficially . . . would dynamically update and display machine learning results during runtime,

with little or no delay.").

Claims that only seek to increase the speed of processes that can otherwise already be

performed by the human mind are unpatentable. *See Bancorp Servs., L.L.C. v. Sun Life Assurance

Co. of Canada (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012); *CyberSource Corp. v. Retail

Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011) ("Methods which can be performed entirely

in the human mind are unpatentable not because there is anything wrong with claiming mental

method steps as part of a process containing non-mental steps, but rather because [they] embody

the 'basic tools of scientific and technological work' that are free to all men and reserved

exclusively to none." (citation omitted)); *see also PurePredictive*, at *1 ("[J]ust because a

computer can make calculations more quickly than a human does not render a method patent

eligible"). Thus, the '574 patent seeks to "monopolize . . . the basic tools of scientific and

technological work," which is exactly what § 101 is meant to prevent. *Alice*, 573 U.S. at 216.

a.   The *PurePredictive* Sister Patent Failed *Alice* Step 1, Too

The *PurePredictive* analysis is particularly instructive and applies here. In that case, the

asserted, now-invalid U.S. Patent No. 8,880,446, with the same inventors (Kelly D. Phillipps and

Richard W. Wellman) and the same original assignee (PurePredictive) as the case at hand, shares

a common specification and claim language with the '574 patent. *See § IV.B, infra*. Similar to

the invalidated '446 patent, the specification of the '574 patent confirms the applicant conceived

of his invention as the automation of a process long performed by people:

> Historically, using predictive analytics or other machine learning tools was a cumbersome and difficult process, often involving the engagement of a Data Scientist or other expert. . . . A Data Scientist typically must determine the optimal class of learning machines that would be the most applicable for a given data set, and rigorously test the selected hypothesis by first fine-tuning the learning machine parameters and second by evaluating results fed by trained data.
>
> The results module 102, in certain embodiments, generates machine learning ensembles or other machine learning program code for the clients 104, with little or no input from a Data Scientist or other expert, by generating a large number of learned functions from multiple different classes, evaluating, combining, and/or extending the learned functions, synthesizing selected learned functions, and organizing the synthesized learned functions into a machine learning ensemble.

'574 patent at 9:57-62, 10:34-54; *see also* '446 patent at 6:25-29, 7:2-21 (identical disclosures).

Thus, the '574 patent suffers from the same deficiencies as the invalidated '446 patent. Indeed, the Federal Circuit has made clear that "automating conventional activities using generic technology does not amount to an inventive concept." *LendingTree, LLC v. Zillow, Inc.*, 656 F. App'x 991, 996 (Fed. Cir. 2016). Notably, that is the stated purpose of the '574 patent— automating the work of a data scientist. *E.g.*, '574 patent at 9:57-62, 10:34-54 (shown above). The *PurePredictive* court found this rationale squarely applied, holding that the "claims are directed to a mental process and the abstract concept of using mathematical algorithms to perform predictive analytics." *PurePredictive*, at *5 (finding, *inter alia*, that "generating learned functions or regressions from data—the basic mathematical process of, for example, regression modeling, or running data through an algorithm—is not a patentable concept") (citing *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014)).

The '574 patent is even more abstract (*i.e.*, even further away from patentable claims) than the '446 patent because its claims are not limited to automated processes. Rather, as exemplified in Claim 16, the applicant claimed the act of data manipulation and display alone, and without any requirement that the process be automated. Because the calculations can be performed without

any machine or automation, and can be performed entirely in the human mind, the patent claims are clearly ineligible. This is wholly consistent with the holding of *PurePredictive*: "These claims are similar to those in *Synopsys*; that the claims 'were intended to be used in conjunction with computer-based design tools' did not save the broad and abstract language of the asserted claims." *PurePredictive*, at *5 (citing *Synopsys*, 839 F.3d at 1149).[5]

At its essence, the fundamental problem with the '574 patent remains that "the claims are drafted using largely (if not entirely) result-focused functional language, containing no specificity about how the purported invention achieves those results. Claims of this nature are almost always found to be ineligible for patenting under Section 101." *Beteiro, LLC v. DraftKings Inc.*, 104 F.4th 1350, 1355–56 (Fed. Cir. 2024) (collecting cases); *see also Elec. Power Grp*, 830 F.3d at 1356 ("[T]he essentially result-focused, functional character of claim language has been a frequent feature of claims held ineligible under § 101."); *Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329, 1337 (Fed. Cir. 2017) ("The claim requires the functional results of 'converting,' 'routing,' 'controlling,' 'monitoring,' and 'accumulating records,' but does not sufficiently describe how to achieve these results in a non-abstract way."). As detailed above, Steps 16[a]-16[e] recite the process of generating a predictive program for machine learning, inputting machine learning parameters, determining machine learning results from the parameters,

---

[5] *See also CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011) (holding "unpatentable mental processes are the subject matter of claim 3" because "claim 3's method steps can be performed in the human mind, or by a human using a pen and paper"); *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014) ("Without additional limitations, a process that employs mathematical algorithms to manipulate existing information to generate additional information is not patent eligible."); *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017) (a claim is abstract under *Alice* if it "claims a method whereby a user starts with data, codes that data using 'at least one multiplication operation,' and ends with a new form of data"); *Coffelt v. NVIDIA Corp.*, No. 2017-1119, 2017 WL 999217, at *1 (Fed. Cir. Mar. 15, 2017) (finding claims directed to an abstract idea because "calculating a . . . steradian region of space . . . is a purely arithmetic exercise").

populating a data structure with those results, and dynamically displaying results. But Steps 16[a]-16[e] include no details on how to perform those steps—just that the steps achieve recited results.

Federal Circuit precedent, the claims, and the specification show that the '574 patent is directed to an abstract idea (manipulation of mathematical functions and display of data), and thus fails to pass muster at *Alice* Step 1, rendering the patent invalid.

3.   *Alice* Step 2: No Transformative Elements, So the Claims Are Unpatentable

Proceeding in the analysis to *Alice* Step 2 results in the same conclusion. *Alice* Step 2 requires determining whether the claims contain an inventive concept sufficient to transform the recited abstract idea(s) into something patentable. The salient inquiry at *Alice* Step 2 is whether the claim amounts to "something 'significantly more' than an abstract idea itself." *AI Visualize*, 97 F.4th at 1379 (quoting *Alice*, 573 U.S. at 217-18). Importantly, "the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." *Alice*, 573 U.S. at 223.

a.   The Result-Oriented Claims Do Not Add Transformative Elements

The '574 patent's results-based, functional language describes only the desired function or outcome, "without providing any limiting detail that confines the claim to a particular solution." *Affinity Labs of Texas, LLC v. Amazon.com, Inc.*, 838 F.3d 1266, 1269 (Fed. Cir. 2016). Nor do the claims provide guidance on ***how*** prediction modules are generated; ***how*** data is input; ***how*** machine learning results are determined; ***how*** a results data structure is populated; or ***how*** the display is dynamically changed. This failure to answer the "how" questions dooms the '574 patent on the abstraction question, and whether something more is added. *See Hawk Tech.*, 60 F.4th at 1358 (finding claims as abstract where they "lack[ed] 'sufficient recitation of how the purported invention improve[d]' the functionality of video [] systems" (citation omitted)).

The claims here simply recite a conventional data processing technique and use only results-based language to describe the alleged invention. This is insufficient to "transform the nature of the claim into a patent-eligible application of the abstract idea." *Two-Way Media*, 874 F.3d at 1338 (citation omitted). Indeed, the steps of the claimed process in the '574 patent merely recite functional language of an unidentified someone or something generating predictive learning programs, inputting data, determining machine learning, compiling the results of the machine learning determinations, and displaying some portion of those results dynamically. *See* §§ IV.A.1-2, *supra*. And worse yet, as explained in greater detail below, the '574 patent purports to use *any* combination of *any generic* computer components in their conventional way to achieve the desired results. *See generally* '574 patent at 3:25-6:10 (describing that any combination of generic hardware, software, and/or other computer components may be used in the disclosed invention). The Federal Circuit has repeatedly held such claiming patent-ineligible. *Hawk Tech.*, 60 F.4th at 1358 (holding ineligible claims that "only use generic functional language" and/or only require "conventional computer . . . components operating according to their ordinary functions"); *AI Visualize*, 97 F.4th at 1380.

The breadth of the '574 patent specification—stating that *all* possible implementations of any disclosed ideas are within the scope of the patent—is also relevant to the *Alice* Step 2 analysis. *See Broadband iTV*, 113 F.4th at 1370 ("When the patent's specification describes the components and features listed in the claims generically, it supports the conclusion that these components and features are conventional." (citations and internal quotations omitted)). Here, the specification explains that the purported invention is not restricted to any specific implementation. For example:

- "Accordingly, aspects of the present disclosure may take the form of *an entirely hardware embodiment*, *an entirely software embodiment* (including firmware, resident software,

micro-code, etc.) *or an embodiment combining software and hardware* aspects that may all generally be referred to herein as a 'circuit,' 'module' or 'system.'" '574 patent at 3:27-32.

- "Similarly, operational data may be identified and illustrated herein within modules, and *may be embodied in any suitable form and organized within any suitable type of data structure*." *Id.* at 3:60-63.

- "In the context of this document, a computer readable storage medium *may be any tangible medium* that can contain, or store a program for use by or in connection with an instruction execution system, apparatus, or device." *Id.* at 4:21-25.

- "Computer program code for carrying out operations for aspects of the present disclosure *may be written in any combination of one or more programming languages*, including an object oriented programming language such as Java, Python, C++ or the like and *conventional procedural programming languages*, such as the 'C' programming language or similar programming languages." *Id.* at 4:26-32.

In other words, the patent asserts that all generic computer components may be used to implement all parts of the claimed invention. This type of generic description and broad claiming plainly fails the inquiry at *Alice* Step 2 because such claiming fails to "do more than simply instruct the practitioner to implement the abstract idea . . . on a generic computer." *Alice*, 573 U.S. at 223, 225 ("[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. Stating an abstract idea 'while adding the words 'apply it'' is not enough for patent eligibility." (citing *Mayo*, 566 U.S. at 72) (internal quotations omitted)).

        b.   **The Claims Also Fail *Alice* Step 2 as an Ordered Combination**

Considering the claim limitations as an ordered combination similarly finds the '574 patent invalid under the § 101 analysis. Each of Steps 16[a]-16[e] recite abstract steps of manipulating

and displaying data. The result of taking the steps together is only a more complicated act of data manipulation that is not specific to any technical problem or data type, regardless of whether the result is a "classification, a confidence metric, an inferred function, a regression function, an answer, a prediction, a recognized pattern, a rule, a recommendation, an evaluation, or the like." *E.g.*, '574 patent at 20:53-58. The collective limitations "ad[d] nothing . . . that is not already present when the steps are considered separately" and thus remain abstract ideas devoid of any sufficiently transformative, inventive concepts. *Alice*, 573 U.S. at 225 (citing *Mayo*, 566 U.S. at 79) (alterations in original). Thus, the claim remains unpatentable.

4.   The "Module" Elements Do Not Change the *Alice* Analysis Result

The use of the term "module" in other claims (*e.g.*, apparatus Claim 1 and system Claim 21) does not change the outcome of the *Alice* analysis. The specification defines the term "module" as ***any arrangement*** of ***any type*** of generic computer component that could possibly be used to perform their recited functions, listing numerous potential hardware and software implementations. '574 patent at 3:47-60 (disclosing "a module may be implemented as a hardware circuit" or "[m]odules may also be implemented in software"). Simply put, "module" is a black-box that refers to whatever it is (hardware or software, as a single component or many disjointed parts) that performs the claimed functions.

The mere addition of claiming such modules does not raise those claims to something inventive. *See Vehicle Intelligence & Safety LLC v. Mercedes-Benz USA, LLC*, 635 F. App'x 914, 916 (Fed. Cir. 2015) (finding patent invalid because it "is completely devoid of any explanation of what these hardware and software differences are, let alone any explanation how to implement them using the existing equipment module"); *LendingTree*, 656 F. App'x at 995–97 (treating claims to the process and "modules" for performing the process as equally abstract). The claims require only "entirely conventional, generic technology" and fail *Alice* Step 2. *See Elec. Power*,

19

830 F.3d at 1356. Indeed, similar to the claims in *Elec. Power,* "the claims in this case specify what [machine learning] information . . . it is desirable to gather, analyze, and display, including in 'real time'; but they do not include any requirement for performing the claimed functions of gathering, analyzing, and displaying in real time by use of anything but entirely conventional, generic technology. The claims therefore do not state an arguably inventive concept in the realm of application of the information-based abstract ideas." *Id.*

5.   The Court Need Not Defer to An Examiner's Conclusion on the '574 Patent

The fact that a patent examiner granted the '574 patent is irrelevant. First, the Examiner's decision to allow these claims to be patented came before the Federal Circuit decision in *PurePredictive*, which held similar claims to be ineligible. Second, it is similarly irrelevant that the application for '574 patent overcame a § 101 rejection during prosecution because "[a]n examiner's statements about a patent are not themselves evidence of the patent's validity." *Fitbit Inc. v. AliphCom,* 2017 WL 3129989, at *2 (N.D. Cal. July 24, 2017). Rather, district courts apply Federal Circuit law "and the relevant Supreme Court precedent, not the Office Guidance, when analyzing subject matter eligibility." In re *Rudy*, 956 F.3d 1379, 1382-83 (Fed. Cir. 2020). The '574 patent's prosecution history, insofar as overcoming a § 101 rejection, is thus not applicable to the § 101 inquiry that the Court is faced with here. The relevant analysis and controlling Federal Circuit precedent hold that the '574 patent is invalid.

B.   The '574 Patent Is Materially Identical to the '446 Patent, So the *PurePredictive* Analysis and Result Applies Here

Should any doubt remain that the '574 patent is invalid under § 101 (which there should not be), understanding the many similarities *PurePredictive* shares with the instant case dispels it. The court's reasoning in that case applies equally here because the '574 patent discloses and claims similar abstract subject matter to the '446 patent. For example, both patents are directed to

20

automated processing using machine learning and displaying the results thereof. Further, the specifications of both patents disclose the same subject matter near-*verbatim*, and as shown in Exhibit 3, the '574 patent copies the overwhelming majority of the '446 patent's specification.

The claims of the two patents are also materially the same. Notably, to attempt to distinguish the '574 patent claims from prior art, PurePredictive amended the claims to recite a "predictive compiler module" for generating machine learning. Ex. 2 at 2 (amended claims). However, the claimed "predictive compiler module" of the '574 patent is substantively identical to the claimed predictive compiler module recited in invalid Claim 1 of the '446 patent:

'574 patent Claim 1 (excerpted)	'446 patent Claim 1 (excerpted)
a predictive compiler module configured to generate machine learning comprising program code for a plurality of learned functions, the code generated by the predictive compiler module to predict one or more machine learning results based on one or more machine learning parameters;	*a predictive compiler module configured to form the predictive ensemble, the predictive ensemble comprising* a subset of multiple learned functions from the plurality of learned functions, the multiple learned functions selected and combined based on the evaluation metadata for the plurality of learned functions, the predictive ensemble comprising a rule set synthesized from the evaluation metadata to direct data through the multiple learned functions such that different learned functions of the ensemble process different subsets of the data based on the evaluation metadata.

These predictive compiler module limitations are directed to the same subject matter and will therefore fail the § 101 analysis for the same reason. The '574 patent's predictive compiler module generates machine learning, which is comprised of program code for a plurality of learned functions. This code is used to predict machine learning results based on machine learning parameters. In other words, the '574 patent's predictive compiler uses a plurality of learned functions to process machine learning.

Likewise, the '446 patent forms a predictive ensemble, which is comprised of a plurality of learned functions. This predictive ensemble is used to process "evaluation data" (machine

learning data) through different learned functions. The variations in wording and requirements are immaterial in the context of § 101. *See Alice*, 573 U.S. at 216 (warning "against interpreting § 101 in ways that make patent eligibility depend simply on the draftsman's art"). Just like the '574 patent's predictive compiler, the '446 patent's predictive compiler uses a plurality of learned functions to process machine learning and both are directed to an abstract idea of mathematical processes. *See PurePredictive*, at *5 (holding that the "next steps of the method," including the method for the predictive compiler, constitutes "mathematical processes that not only could be performed by humans but also go to the general abstract concept of predictive analytics rather than any specific application").

The remaining claim limitations are likewise substantively similar. Each additional step of the independent claims of the '574 patent calls for inputting machine learning parameters, determining machine learning results, populating those results, and displaying those results—which all go to the same abstract ideas of "the basic mathematical process of, for example, regression modeling, or running data through an algorithm" as the steps in the '446 patent. *Id.*

The significant overlap and similarity between the '574 patent and the '446 patent warrants the same outcome as in *PurePredictive*: the '574 patent is not patent eligible.

   1. The '446 Patent Was Directed to the Abstract Concepts of Mathematical Processes, Predictive Analytics, and Automation, Failing *Alice* Step 1

The N.D. Cal court found that "[t]he first step, generating learned functions or regressions from data—the basic mathematical process of, for example, regression modeling, or running data through an algorithm—is not a patentable concept." *Id.* (citing *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014)). PurePredictive argued that the '446 patent claimed a process that "would be impossible for a human to perform" because the patent disclosed that a function generator module performing step [a] "may generate hundreds, thousands, or millions of

learned functions, or more." *See PurePredictive*, at *5; '446 patent at 9:55–57. The court, however, rejected this argument and instead held that "just because a computer can make calculations more quickly than a human does not render a method patent eligible." *PurePredictive*, at *5 (citing *Bancorp Servs.*, 687 F.3d at 1278).

The Court found the remaining steps [b]-[c] were similarly abstract. "The method takes the learned functions, evaluates their effectiveness, and selects those most effective to create a rule set. These are mathematical processes that not only could be performed by humans but also go to the general abstract concept of predictive analytics rather than any specific application." *Id.* The '446 patent's broad specification (from which the '574 patent heavily borrows, *see generally* Ex. 1) "reinforce[d] this conclusion." *Id.* The court also explained the specification showed the predictive analysis factory was "configured to generate a predictive ensemble ***regardless of the particular field or application***," and compared that explanation of the predictive analysis factory to claim elements in other cases that were invalided because they "were intended to be used in conjunction with computer-based design tools." *Id.* (citing '446 patent at 1:41–44 and quoting *Synopsis*, 839 F.3d at 1149).

This analysis of the '446 patent applies with equal force to the '574 patent, and Web3AI cannot demonstrate otherwise.

2. The '446 Patent Failed at *Alice* Step 2 Because The Claims Recited Abstract Ideas Applied on Generic Computer Components

The *PurePredictive* court held that the '446 patent did not contain an inventive concept sufficient to transform the claims into a patent-eligible application, thus failing *Alice* Step 2. In support of this holding, the court's analysis distinguished the '446 patent claims from those

23

asserted in *DDR Holdings* and *BASCOM*.[6] *PurePredictive*, at *6. Specifically, the court held that the '446 patent was different from the patent-at-issue in *DDR Holdings*, which was directed to solving an "Internet-centric problem," 773 F.3d at 1248, 1259, for three reasons:

- First, generally, "[t]he realm of computer technology or technological environments," which is the realm of the '446 patent, "is far broader than Internet-centric challenges." *PurePredictive*, at *6.

- Second, in contrast to a "very specific problem—allowing third-party advertising on websites result[ing] in decreased visitor retention," the '446 patent claims addressed "the universal problem in any analytical framework of choosing between a more generally applicable or more specific and customized model." *Id.*

- Third, while the patent in *DDR Holdings* was "specifically engineered to construct a hybrid web page" to store specified parameters (visual elements of a different host website), the '446 patent "solutions remain[ed] the abstract mathematical processes of collecting and analyzing data. *Id.* ("This is not the unconventional or inventive solution necessary to satisfy the second step of *Alice*.").

The *PurePredictive* court likewise distinguished from *BASCOM* to illustrate the '446 patent's failure at *Alice* Step 2. Specifically, the court found that the claims "'merely recite the abstract idea of' predictive analytics 'along with the requirement to perform it on . . . a set of generic computer components.'" *Id.*, at *7 (quoting *BASCOM*, 827 F.3d at 1350). Further, the claims failure to "describe specific system architecture" and their "references to generic '***modules***' [did] not provide any further specificity" raising the claims to eligibility. *Id.* (emphasis added).

---

[6] *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016).

Relying on *BASCOM*'s standard that "an inventive concept 'must be significantly more than the abstract idea itself,'" the court in *PurePredictive* ultimately found that the "technology, while perhaps an effective method, is simply an implementation of the basic concept of predictive analytics on an apparatus, computer program product, or other medium" and thus failed at *Alice* Step 2. *Id.* (quoting *BASCOM*, 827 F.3d at 1349).

3. The Federal Circuit Summarily Affirmed the Decision over PurePredictive's Various Arguments

Recognizing the '446 patent's serious deficiencies, the Federal Circuit summarily affirmed the N.D. Cal decision without opinion. *PurePredictive, Inc. v. H2O.AI, Inc.*, 741 F. App'x 802 (Fed. Cir. 2018). The Federal Circuit may "enter a judgment of affirmance without opinion" when it determines: "(1) the judgment, decision, or order of the trial court appealed from is based on findings that are not clearly erroneous." FED. CIR. R. 36. Here, the Federal Circuit summarily rejected each of the near dozen arguments raised by PurePredictive in its appeal brief and in its reply. *See* Ex. 4 (Brief of Appellant, *PurePredictive, Inc. v. H2O.AI, Inc.*, 741 F. App'x 802 (Dkt. 19)); Ex. 5 (Reply Brief of Appellant, *PurePredictive, Inc. v. H2O.AI, Inc.*, 741 F. App'x 802 (Dkt. 32)). In reaching this result, the Federal Circuit saw no error in the N.D. Cal court's § 101 analysis of the '446 patent.

The Federal Circuit's Rule 36 affirmance of the '446 patent's invalidity, coupled with the substantial overlap between the '446 patent and the '574 patent, dictates the outcome in this case. The '574 patent is invalid under 35 U.S.C. § 101.

C. Claims 1, Claim 21, and Their Dependent Claims Are Invalid Under 35 U.S.C. § 112(f)

There is an independent reason, beyond § 101, why certain claims should be found invalid at the threshold pleading stage. Steps 1[a]-1[e] of independent Claim 1 and Steps 21[a]-21[e] of independent Claim 21 are written as means-plus-function limitations reciting generic "modules"

that are "configured to" perform various functions. For example, Step 1[a] recites "a predictive compiler module configured to generate machine learning comprising program code for a plurality of learned functions." '574 patent at cl. 1; *see also id.* at cl. 21 (similar limitation recited as part of system claim). The manner of recitation in Steps [b]-[e] of Claims 1 and 21 are likewise the same as Step [a]. *Id.* The patent does not recite any sufficient corresponding structure for these modules in either the specification or the claims, and thus Claims 1 and 21 must be analyzed as means-plus-function claims subject to the claiming requirements of § 112(f).

1.   Claims 1 and 21 Recite Entirely Functional "Module" Terms Without Corresponding Structure

"'Module' is a well-known nonce word that can operate as a substitute for 'means' in the context of § 112[(f)]." *Williamson*, 792 F.3d at 1350. As in *Williamson*, "[h]ere, the word 'module' does not provide any indication of structure because it sets forth the same black box recitation of structure for providing the same specified function as if the term 'means' had been used." *Id.* This can be readily seen by replacing the generic "module" terms and the phrase "configured to" with "means for." For example, Claim 1 at Step 1[a] states: "[means for] generat[ing] machine learning comprising program code for a plurality of learned functions, the code generated by the predictive compiler module to predict one or more machine learning results based on one or more machine learning parameters." *See* '574 patent at cl. 1. The remaining limitations in Claims 1 and 21 are no different.[7]

---

[7] In *Rain Computing, Inc. v. Samsung Elecs. Am., Inc.*, the Federal Circuit found that the claim term "user identification" module was a means-plus-function term subject to § 112(f) because "it merely describes the function of the module: to identify a user. Thus, the claim language fails to provide any structure for performing the claimed functions." 989 F.3d 1002, 1006 (Fed. Cir. 2021) (citation omitted). The mere use of "module" as a substitute for "means for" without any recited structure thus renders these means-plus-function claims subject to the claiming requirements of § 112(f). *Id.*

Moreover, examining the claims in light of the specification fails to yield any sufficient

structure. The '574 patent describes a whole host of ***potential*** components and ***potential*** methods

of implementation, but it never reaches affirmative, specific structure, opting instead to capture

any and all possible implementations. '574 patent at 3:25-6:10 (describing that any combination

of generic hardware, software, and/or other computer components may be used in the disclosed

invention); *see also* § IV.A.4, *supra*. Related to Step 1[a] of Claim 1, the '574 patent specification

describes the "predictive compiler module" itself in entirely functional terms without ever

affirmatively limiting or designating a specific structure. '574 patent at 18:5-11, 19:13-21, 20:7-

11 (all instances of "predictive compiler module"). This is true for each of the remaining "input"

module,[8] "pre-compute" module,[9] "display" module,[10] "update" module,[11] and "collaboration"

module.[12] Reciting only generic computer components is insufficient for this inquiry. As the

Federal Circuit explained in *Rain Computing*: "[I]n [a previous case], we held that the written

description of a 'copyright compliance mechanism,' including how it was connected to various

parts of the system, how it functioned, and its potential functional components, was not enough to

provide sufficient structure to the claimed 'compliance mechanism.'" 989 F.3d at 1006 (citing

Media Rights Techs., Inc. v. Capital One Fin. Corp., 800 F.3d 1366, 1372-73 (Fed. Cir. 2015)).

Thus, descriptions only of how modules ***may*** be incorporated into "various parts of the system,"

how the modules ***may*** function (*e.g.*, disclosing examples of the type of data a user may enter into

---

[8] '574 patent at 1:46-60, 2:11-15, 15:56-62, 16:6-11, 16:29-42, 16:43-48, 17:40-44, 17:48-51, 18:5-11, 18:21-27, 18:53-61, 19:39-44, 19:49-52, 35:28-44, 36:4-17 (input module).

[9] '574 patent at 2:5-11, 12:28-36, 16:51-57, 16:58-64, 17:61-18:4, 18:7-11, 18:12-19:12, 19:34-38, 35:35-40, 35:45-36:3, 36:8-13 (pre-compute module).

[10] '574 patent at 1:49-53, 2:15-18, 15:56-59, 16:43-17:3, 17:14-48, 18:5-11,18:22-27, 18:53-61, 19:39-44, 19:52-57, 20:1-6, 35:32-35, 36:5-8 (display module).

[11] '574 patent at 1:55-60, 15:56-59, 17:20-26, 17:37-18:4, 18:5-11, 18:46-61,19:52-57, 35:40-44, 36:13-17 (update module).

[12] '574 patent at 18:5-11, 19:1-5, 19:45-48, 19:58-20:1 (collaboration module).

the input module, which may be processed by the pre-computer module, or which may be displayed by the display module), or what computer components *could* be used do not disclose sufficient structure to avoid the claims being brought under § 112(f)'s purview. *Id.* The '574 patent fails to provide any description beyond "potential functional components" and the Court should thus find Claims 1 and 21, and their dependent claims, subject to and invalid under § 112(f). *See id.*

For the same reasons, the final limitation in both claims reciting that these generic modules "comprise one or more of logic hardware and a non-transitory computer readable storage medium storing program code executable by a processor" fails to remove the claims from the specific claiming requirements of § 112(f). *See* '574 patent at cls. 1, 21. Even the passages in the specification that purport to disclose structure fail to meet the claiming requirements because they do not describe components in anything beyond purely potential, functional terms. Indeed, the '574 patent's specification states that any combination of any computer may *potentially* be used, but again, fails to affirmatively, and definitively, identify anything beyond *potential* computer components. *E.g.*, '574 patent at 4:21-25 ("In the context of this document, a *computer readable storage medium may be any tangible medium* that can contain, or store a program for use by or in connection with an instruction execution system, apparatus, or device."). "Without more," the Court "cannot find that the claims, when read in light of the specification, provide sufficient structure for" any of the module terms. *Media Rights Techs., Inc.*, 800 F.3d at 1373; *see also Rain Computing*, 989 F.3d at 1006. The Court should thus rule that Claims 1 and 21 recite means-plus-function terms that fail to meet the claiming requirements of § 112(f) because they do not describe the requisite corresponding structure required by the patent statute.

2.   Claims 1 and 21 and Their Dependent Claims Are Invalid Under § 112(f) Because They Recite Only Black Boxes Performing Functions

Nothing changes at the next step of analysis because the claims are invalid as indefinite under § 112(f) for the same reasons they are subject to that statute. *See* § IV.C.1, *supra*. Claim 1, Claim 21, and the specification all fail to recite sufficient structure to achieve the recited function of the modules. As described above, each of the recited modules is just "a black box that performs the recited function," and this "is not a sufficient explanation of the algorithm required to render the means-plus-function term definite." *Augme Techs., Inc. v. Yahoo! Inc.*, 755 F.3d 1326, 1338 (Fed. Cir. 2014) (citing *ePlus, Inc. v. Lawson Software, Inc.*, 700 F.3d 509, 518 (Fed. Cir. 2012).

Even if the disclosure that virtually any computer component may be used for these modules constituted sufficient structure (it does not), that would still be indefinite because it does not disclose ***how*** it achieves the claimed function. *Williamson*, 792 F.3d 1339, 1352 (Fed. Cir. 2015) ("[e]ven if the specification discloses corresponding structure, the disclosure must be of adequate corresponding structure to achieve the claimed function.") (citations omitted). Indeed, because the claimed functions are to be "performed by a general-purpose computer," the specification must "disclose the algorithm that the computer performs to accomplish that function." *Rain Computing*, 989 F.3d at 1007 (citation omitted). This does not.

The specification does not "disclose any algorithm to perform the recited function." *Fintiv, Inc. v. PayPal Holdings, Inc.*, 134 F.4th 1377, 1384-85 (Fed. Cir. 2025); *see also* § IV.C.1, *supra*. No module is ever described in the claims or specification beyond the results they are designed to achieve. There is no algorithm describing how the claimed predictive compiler, pre-compute, input, collaboration, display, or update modules actually perform their functions with any specificity—just that they do the recited functions. *See* § IV.C.1, *supra*. The Federal Circuit has repeatedly held that "describing 'the results of the operation of an unspecified algorithm' is not

sufficient to transform the disclosure of a general-purpose computer into the disclosure of sufficient structure to satisfy § 112[(f)]." *Fintiv*, 134 F.4th at 1385 (quoting *Aristocrat Techs. Austl. Pty Ltd.*, 521 F.3d at 1335). This is precisely the problem with Claims 1 and 21; these claims are indefinite because they fail to disclose any structure or algorithm sufficient to understand ***how*** the modules perform Steps [a]-[e] of the claimed process.

Additionally, dependent Claims 2-15 and 22-25 include the limitations of their respective independent Claims 1 and 21, and are thus invalid for the same reasons. *See, e.g., Blackboard, Inc. v. Desire2Learn, Inc.*, 574 F.3d 1371, 1382 (Fed. Cir. 2009). The Court should thus grant Strategy's further motion to dismiss this case with respect to Claims 1-15 and 21-25 under 35 U.S.C. § 112(f).

V.   CONCLUSION

The '574 patent claims are wholly functional claims directed to abstract ideas, without adding any inventive concept. That means they are ineligible under § 101. And the '574 patent specification fails to provide definite structure for the recited modules in Claims 1 and 21, and fails to disclose how to achieve the claimed, desired results, making them and their dependent claims invalid under § 112(f). Thus, the Court should grant Strategy's motion to dismiss with prejudice.

Respectfully submitted,

FISH & RICHARDSON P.C.

Dated: July 15, 2025

By: _/s/ Ahmed J. Davis_

Ahmed J. Davis (Va. Bar No. 43982)
adavis@fr.com
Daniel R. Gopenko (Va. Bar No. 83932)
gopenko@fr.com
FISH & RICHARDSON P.C.
1000 Maine Avenue, SW, Suite 1000
Washington, DC 20024
Telephone: (202) 783-5070
Facsimile: (202) 783-2331

Counsel for Defendant
MICROSTRATEGY INCORPORATED D/B/A
STRATEGY

31

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the above and foregoing document has been electronically filed with the Clerk of the Court on July 15, 2025 using the CM/ECF system which does send notification of such filing to all counsel of record.

/s/ Ahmed J. Davis
Ahmed J. Davis (Va. Bar No. 43982)
adavis@fr.com
FISH & RICHARDSON P.C.
1000 Maine Avenue, SW, Suite 1000
Washington, DC 20024
Telephone: (202) 783-5070
Facsimile: (202) 783-2331